

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/200,935 11/30/98 YANG

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EXAMINER

JEAN PIERRE, P

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 10/24/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

10/24/00

Office Action Summary	Application No. 09/200,935	Applicant(s) Yang
	Examiner Peguy JeanPierre	Group Art Unit 2819

Responsive to communication(s) filed on Sep 5, 2000

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-34 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-34 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walters (USP 4,408,272) in view of Hoffert (USP 5,502,837).

With regard to claims 1-2, Walters discloses in Figure 10 a serial to parallel converter (shift register 120) (see col. 11, lines 50-55) which converts a serial data to a parallel data having a data length of 8 bits or 16 bits (see col. 12, lines 4-7). The data length is made by a length selection circuit (35) under control of the control word stored in a control register (37) connected to the serial parallel converter. With regard to claims 16-17, Walters further disclose in Figure 1 a parallel to serial converter (shift register 20) (see col. 2, lines 44-46) which converts a parallel data to a serial data having a data length of 8 bits or 16 bits (see col. 3, lines 19-21). The data length is made by a length selection circuit (35) under control of the control word stored in a control register (37) connected to the parallel to serial converter (20). The shifting of the data length parallelly or serially depends on a clock/sync generator (28) connected to the converters (20, 120) via gate (30). The system of Walters further comprises two bits L1, L0, which select the length of the data to be transmitted (see col. 7, lines 38-41).

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In considering claims 1-2 and 16-17, Walters does not teach the selection of the clock signal in response to the mode signal or the data length format. Hoffert discloses in column 6, lines 17-35, a clock signal (81) which synchronizes a counter (42) to generate clock outputs (73-75) at frequencies required for a 32, 16, or 8 bit mode signal, a multiplexer (41) which selects one of the output clocks (73-75) in relation to the data length format. Therefore, it would have been obvious to one having ordinary skill in the art to modify the system of Walters by selecting the clock signal based on the mode signal or the data length to be processed for the benefit of sequentially shifting the desired length of data efficiently and accurately in a timely manner, thereby, improving system's synchronization. In considering claims 5-15 and 20-34, Walters does not teach a first, a second, a third, and a fourth transfer units which include a first, a second, a third, and a fourth shift registers. It is readily admitted in the Prior art Figure 1 a clocking scheme (20, 30) coupled to a plurality of transfer units as illustrated in Figure 2 and includes a first and a second transfer units (TX1, TX2) having a first and a second shift registers having the same bit storage capacity. Shift registers are electronic circuits which are known in the art to store digital data, transmit the stored digital data or a portion of the stored digital data according to a particular setting or mode. It is further known in the art that the timing, the format (parallel or serial) in which the register transmit the stored digital data is function of the inputted clocking scheme. The clocking scheme generally has variable pulses, intervals, periods which vary according to the length of the data subjected to be transferred. Therefore, it would have been obvious to one having ordinary skill in the art to modify Walters by providing the clocking scheme

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to the plurality of shift registers as taught by the Prior Art for the benefit of shifting a desired length of data efficiently in a timely manner.

Response to Arguments

3. Applicant's arguments filed on 9/5/2000 have been fully considered but they are not persuasive.

Applicant argues that Walters does not disclose a serial/parallel or parallel/serial converter. The Examiner disagrees. The system of Walters includes shift registers (20, 120) which function as serial/parallel or parallel/serial converters (see col. 11, pages 50-55). Electronic devices such as converters include a clocking scheme which functions to synchronize and drive the circuit elements of the device in a timely manner. Therefore, the limitations of a converter adapted to receive a clock signal cannot be considered novel in the art. The clock recited in the present application can be regarded as a conditional clock signal since it is programmed/set to select a particular data length. Therefore, to cure this deficiency, the Hoffert reference is combined with Walters reference to meet the functional limitations of the claimed language. The combination of Walters and Hoffert references meet the claimed language by providing a converter which can accommodate a plurality of data lengths. In addition, both references deal with the transmission of digital data having a variable data length. Applicant argument is based almost entirely on why the references cannot be combined. The type of data to be driven by the clock signal is not at issue in this particular case but the selection of the length of data to be driven by the clock signal is. For, the references are chosen mostly for what they fairly suggest and the concepts contain in the

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chosen references, if available to any artisan having working knowledge in the art, can be modified by to produce the claimed invention.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peguy JeanPierre whose telephone number is (703) 308-1968. Any inquiry of a general nature or related to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group fax number is (703) 308-7722.


Peguy JeanPierre

October 23, 2000